



# Environmental Protection Agency

2200 Churchill Road, Springfield, Illinois 62706 I-1

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January 27, 1981

Mr. Bill Constantellos  
Deputy Director  
Air and Hazardous Materials Division  
USEPA, 11th Floor  
230 South Dearborn Street  
Chicago, Illinois 60604

Dear Mr. Constantellos:

I am writing you in reference to an illegal hazardous waste dump site generally known as "Dead Creek," which is located in Sauget/Cahokia (St. Clair County), Illinois. This site came to our attention in the summer of 1980, and a preliminary investigation showed high levels of PCB's, phosphorous, and five metals.

A thorough sampling and analysis of area soil, surface water, and ground water has established this site as being seriously contaminated and in need of clean-up. I am enclosing copies of our analytical results, reference maps of the area, and a summary of our findings.

The Illinois Attorney General's Office has been conducting a separate investigation, but has been unable to determine liability.

It is our hope that Superfund Assistance might be available for clean-up operation in Dead Creek. Could you give me some guidance in this matter? How can I best proceed to qualify this site for Superfund Assistance, and how can I initiate the necessary paperwork?

I would appreciate any help you can give me in this matter. Thank you.

Sincerely,

Jim Kelty, Chemist  
Emergency Response Unit

JK:jks  
Enclosures

## SUMMARY OF THE PHASE TWO INVESTIGATION OF DEAD CREEK, SAUGET/CAHOKIA, ILLINOIS

Phase One of the Illinois EPA investigation of the Dead Creek area between Queeny Avenue and Judith Lane revealed a pattern of high concentrations of organic contaminants in the surface soil of the north end of the ditch, with decreasing values southward; and, high concentrations of approximately five metals and one non-metal in the surface soil of the south end of the ditch, with decreasing values northward.

Phase Two has now been completed. This phase is a determination of the extent of contamination of the sub-surface soil in the ditch area of primary concern (between Queeny Avenue and Judith Lane), as well as of the surface soil, sub-surface soil, and ground-water in all directions away from the main ditch.

Sub-surface soil analyses of the main ditch area paralleled surface analyses, but concentrations were lower, again showing accumulations of organics (mainly PCB's) in the north end and inorganics to the south.

West of the ditch: Surface and sub-surface soil samples were found to contain trace levels of PCB's, but normal levels of inorganics. Ground-water was normal, with the exception of one monitoring well about 50 ft. west of the ditch. This well showed sub-ppm levels of chlorinated aromatics, e.g., monochlorobenzene, dichlorobenzene, chloronitrobenzene, and dichlorophenol.

South of Judith Lane: Surface and sub-surface soil samples of the ditch were all normal for inorganics and organics, with the exception of one area 25 ft. south of Judith Lane and a second area at the Cahokia Street culvert. These two areas showed slightly elevated levels of PCB's, five metals, and one non-metal.

East of the ditch: Surface and sub-surface soil samples were normal with respect to organics and inorganics. One ground-water sample from a well sunk just south of Queeny Avenue showed trace levels of PCB's and normal levels of inorganics. Sediment from the drainage cut between the ditch and the back-up pond showed moderately high levels of PCB's and inorganics. Both the pond water and pond sediment showed slightly elevated levels of PCB's and normal levels of inorganics.

North of Queeny Avenue: Water from two lagoons on the Eastern edge of Cerro Gordo Copper Company property north of Queeny Avenue showed trace levels of PCB's and moderately elevated levels of Copper, lead, nickel, phosphorous, and zinc. Sediment from these lagoons showed low levels of PCB's, but were not analyzed for inorganics. Also, a well was drilled by the Illinois EPA on Cerro Gordo Copper Company property approximately 20 yards west of the Dead Creek culvert and 20 yards north of Queeny Avenue. Ground-water from this well at approximately 16 ft. deep showed no PCB's, low levels of chlorobenzenes and chloroaniline, and moderately elevated levels of copper and zinc.

Air grab samples in Dead Creek were negative for non-disturbed soil conditions, as was long-term air monitoring. With the soil disturbed to promote vapor release, grab samples were positive for chlorinated hydrocarbons in the north end of the ditch, but negative in the south end.

of the ditch. Also, for disturbed soil, long-term air monitoring was negative in the north end of the ditch, but showed trace levels of xylene in the south end of the ditch. These air analyses are inconclusive, except possibly to indicate that potentially harmful vapors are released only when the soil in the Dead Creek bed is disturbed.

All drinking water wells in the area were sampled and found to be not contaminated.